

November 28, 2005

Filed via ECFS

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: Interconnected Voice Over Internet Protocol 911 Compliance Letter
WC Docket No. 05-196

Dear Ms. Dortch:

Cbeyond Communications, LLC ("Cbeyond") hereby submits this Compliance Report in response to the Enforcement Bureau's November 7, 2005 Public Notice¹ setting forth the information to be provided in the E911 report described in the Commission's June 3, 2005 *VoIP E911 Order*.² As explained within the report, it is not clear whether and to what extent the rules adopted in the Commission's *VoIP E911 Order* apply to the voice services offered by Cbeyond using TCP/IP protocol. Nevertheless, out of an abundance of caution, attached please find its Compliance Report, setting forth the manner in which Cbeyond ensures the delivery of E911 for those services.

If you have any questions regarding any of the information provided herein or require further information, please do not hesitate to call me at (678) 549-5565.

Sincerely,

_____/s/
Julia Strow
Vice President, Regulatory & Industry Relations
Cbeyond Communications, LLC

Encl.

cc: Kathy Berthot, Spectrum Enforcement Division (w. encl.)
Janice Myles, Competition Policy Division (w. encl.)

¹ Enforcement Bureau Outlines Requirements of November 28, 2005 Interconnected Voice Over Internet Protocol 911 Compliance Letters, WC Docket Nos. 04-36 and 05-196, DA 05-2495 (rel. Nov. 7, 2005).

² *IP-Enabled Services and E911 Requirements for IP-Enabled Service Provider*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245 (2005) ("*VOIP E911 Order*").

Cbeyond Communications
VoIP 911 Compliance Notification
November 28, 2005
WC Dockets 04-36 and 05-196

Cbeyond Communications respectfully submits the following Compliance Notification Report. This Report responds to the information requested in the November 7, 2005 Enforcement Bureau Public Notice¹ regarding Cbeyond's compliance with the requirements established in the *VoIP E911 Order*.²

1. Telephone Service Cbeyond Offers Using TCP/IP

Cbeyond offers telephone service utilizing TCP/IP to business customers in Atlanta, Dallas, Houston, Denver and Chicago. To provide this telephone service, Cbeyond utilizes a private IP network (Cbeyond does not rely on the public internet), and Cbeyond offers customers precisely the same functionalities as those delivered by traditional circuit-switched telephone service. As with circuit-switched service, Cbeyond's IP voice service is geographically fixed and Cbeyond can differentiate intrastate from interstate calls. Cbeyond and the states in which it operates have therefore treated its telephone service as subject to the dual state and federal jurisdiction applicable to circuit-switched telephone service under the Communications Act. As a result, Cbeyond applied for and received certificates of public convenience and necessity prior to offering service in each state in which it operates, and it offers its local telephone service pursuant to tariffs filed with the relevant state regulatory commissions. In addition, Cbeyond is subject to and has complied fully with the 911 and E911 requirements established by state regulatory commissions for local telephone services (circuit-switched and IP-based). To comply with these requirements, Cbeyond provides E911 service routed through all of the Public Safety Answering Points (PSAPs) in the areas in which it offers telephone service. It has done so since first launching its service in 2001.

2. Application of the *VoIP E911 Order* to Cbeyond's IP Telephone Service

Cbeyond believes that the Commission did not mean to apply the requirements of the *VoIP E911 Order* to Cbeyond's IP business voice services. First, in adopting the *VoIP E911 Order*, the Commission sought to address the states' ability to ensure the delivery of E911, but that problem has no relevance to Cbeyond's IP business voice

¹ "Enforcement Bureau Outlines Requirements of November 28, 2005 Interconnected Voice Over Internet Protocol 911 Compliance Letters," WC Docket Nos. 04-36 and 05-196, DA 05-2495 (rel. Nov. 7, 2005).

² *IP-Enabled Services and E911 Requirements for IP-Enabled Service Provider*, First Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 10245 (2005) ("*VOIP E911 Order*").

service. In the *Vonage Order*,³ the Commission preempted state regulation of interconnected VoIP service, arguably rendering the states incapable of fulfilling their traditional responsibility of ensuring that providers of telephone service deliver 911 and E911 service. The Commission then adopted E911 requirements for interconnected VoIP services in the *VoIP E911 Order* to address this gap in the 911/E911 regime. *See VoIP E911 Order* ¶ 3. But as explained, Cbeyond's service is subject to state jurisdiction generally and state 911 and E911 requirements in particular. It is not even clear that the FCC has the authority to preempt these state requirements as they apply to Cbeyond's IP business voice service. In any event, there is no reason to think that the Commission intended such a preemption or that it intended that the rules adopted in the *VoIP E911 Order* would apply to telephone services that are already subject to and are in full compliance with state 911 and E911 requirements.

Second, the rules adopted in the *VoIP E911 Order* apply to "interconnected VoIP services," which are defined as services that (1) enable real-time, two-way voice communications; (2) require a broadband connection from the user's location; (3) require IP-compatible CPE; and (4) permit users to receive calls that originate on the PSTN and terminate calls to the PSTN. *VoIP E911 Order* ¶¶ 23-25. The Commission did not provide much explanation as to what it meant by IP-compatible CPE. It stated only that this phrase refers to "end-user equipment that processes, receives, or transmits IP packets." *Id.* at n.77. By example, the Commission cited the *Vonage Order* and the *Pulver Order*,⁴ stating that "IP-compatible CPE includes, but is not limited to, (1) terminal adapters, which contain an IP digital signal processing unit that performs digital-to-audio and audio-to-digital conversion and have a standard telephone jack connection for connecting to a conventional analog telephone; (2) a native IP telephone; or (3) a personal computer with a microphone and speakers, and software to perform the conversion (softphone)." *Id.* Except for those subscribing to SIPconnect (discussed in footnote 5 below), the SIP voice service mentioned below, Cbeyond's customers do not appear to use IP-compatible equipment like this. Cbeyond does deploy the equivalent of a sophisticated network interface device, which it owns and controls, near or on the customer's premises. This device is essentially the demarcation point between Cbeyond's network and the customer. Among other things, this "integrated access device" ensures that Cbeyond hands off all voice traffic to the customer in TDM format. That is, the device converts calls terminating to the customer from IP (the protocol used in the Cbeyond network) to TDM (the protocol used by the customer's CPE), and converts calls originated by the customer from TDM to IP. Unlike the examples of IP-

³ *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, Memorandum Opinion and Order, 19 FCC Rcd 22404 (2004) ("*Vonage Order*").

⁴ *Petition for Declaratory Ruling That Pulver.com's Free World Dialup Is Neither Telecommunications Nor a Telecommunications Service*, Memorandum Opinion and Order, 19 FCC Rcd 3307 (2004) ("*Pulver Order*").

compatible CPE enumerated by the Commission, the integrated access device deployed by Cbeyond neither functions as a telephone itself nor is directly connected to such a telephone device. It therefore appears that the Commission did not intend network equipment that performs the protocol conversion and network control functions performed by Cbeyond's interface device and that is owned and controlled by the service provider to qualify as IP-compatible CPE.⁵

Third, some of Cbeyond's customers use PBX equipment, but it does not seem likely that the FCC intended to impose the requirements of the *VoIP E911 Order* to services provided to PBX operators. In 2003, the FCC deferred jurisdiction of E911 for PBX, including IP-PBX, services to the states⁶ and has not reversed its policy to date. Additionally, the Commission has acknowledged that the cooperation of all parties is required to provide E911 for PBX-type systems. *Id.* ¶ 61. Nonetheless, the Commission effectively precluded the possibility of deploying E911 to IP-based PBX systems under the *VoIP E911 Order*, by exempting the users and the manufacturers of IP-based PBX equipment, knowing that transmission providers alone cannot provide E911 services for PBX. *See VoIP E911 Order* at n.78.

Cbeyond believes that this analysis justifies the conclusion that the *VoIP E911 Order* does not apply to any of the telephone services it offers utilizing TCP/IP. Nevertheless, out of an abundance of caution, Cbeyond has provided below the information the Commission requested in its November 7th Public Notice.

3. Information Requested In Compliance Reports

911 Solution: As stated above, Cbeyond's E911 service is fully compliant with state regulatory requirements as well as local emergency authority requirements. These requirements include, but are not limited to, full compliance with 911 Routing Information/Connectivity to Wireline E911 Network; Transmission of ANI and Registered Location Information; and full 911 coverage in our operating territory. Cbeyond sends 911 calls to the correct selective router via redundant and diversely routed trunk groups assigned to each rate-center and/or community, in which it offers telephone service, based upon the relevant default PSAP Emergency Switch Number ("ESN") assignment.

⁵ To be sure, Cbeyond does provide SIPconnect, a SIP-based service that delivers voice traffic to the customer in IP format. Customers subscribing to this service do appear to utilize CPE that qualifies as "IP-compatible" under the *VoIP E911 Order*. Like its other services, however, SIPconnect is geographically fixed and is subject to state regulation, including state 911 and E911 regulations. These services do not therefore appear within the class of offerings subject to the *VoIP E911 Order* for the reasons discussed above.

⁶ *Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems, et al.*, Report & Order and Second Further Notice of Rulemaking, 18 FCC Rcd 25360 (2003) ¶¶ 55, 62 ("*E911 Scope Order*").

As of 11/28/05, Cbeyond connects to eighteen selective routers. One hundred percent of the PSAPs within Cbeyond's territory are capable of receiving and processing the ANI and registered location information that Cbeyond transmits. Cbeyond transmits the correct ANI and registered location of one hundred percent of its subscribers.

Obtaining Initial Registered Location Information and Updating Registered

Location Information: Cbeyond obtains each customer's registered location information when Cbeyond initially signs up the customer. Cbeyond has obtained this information for one hundred percent of its customers. Where a customer uses a PBX, Cbeyond obtains the location information for the address at which the Cbeyond trunk connects to the customer's PBX equipment.

Technical Solution for Nomadic Subscribers: All of Cbeyond's services are geographically fixed. Therefore, there is no need to provide a solution for nomadic subscribers. It should be noted that, to the extent that users of telephone stations served by a PBX may be characterized as "nomadic," the provider of the transmission service to the PBX cannot ensure delivery of E911 for those customers. In fact, the onus lies with the PBX administrator to ensure that the end user station locations are updated on a timely basis to ensure that E911 services are available. Cbeyond's services are capable of transmitting the telephone number information received from the PBX to the selective routers. At the very least, this means that Cbeyond transmits the number assigned to the trunk serving the PBX and the location at that trunk. Cbeyond is therefore already fully compliant with the E911 requirements applicable to a provider of transmission services. In light of all of the considerations discussed herein, most importantly the existence of a recent FCC order delegating E911 for IP-PBX service to the states and the fact that Cbeyond has fully complied with its E911 obligations to the extent technically feasible, Cbeyond does not plan to stop marketing or accepting new customers for services that use PBX equipment.